

Work Order ID 151195

September 13, 2016 3:34:38 PM

151195

Page 1

Item ID: D212-725-1-945

Revision ID:

Item Name: Tube

Start Date: 9/12/2016 Start Qty: 2.00

Required Date: 10/17/2016 Req'd Qty: 2.00

Reference:

Approvals: Process Plan: Std

QC:

Date: SEP 13 2016

Date:

Tooling:

SPC (Y/N):

Date:

Date:

Accept ***N900040100***

Setup Start ***NS1***

Stop ***NS2***

Cust Item ID:

Customer:

Run Start ***NR1***

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4266	B								

100

0.00

100

Purchasing

Purchasing

Memo

Issue P/O: 33759

Ship to FIELD AVIATION

Fabricate D212-725-1-945 as per dwg

Certificate of conformity is required

0.00

2

SEP 23 2016

DAS
13
9-59

110

Receive & Inspect for Damage & Mat'l Certs

0.00

110

Packaging

Packaging

Memo

0.01

2x 8p/16-11-17.

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval 	
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
						QC / QA Coordinator Approval			

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification ☐	☐	Pressure/Forced ☐	☐	Temperature/Cure ☐	☐
Design ☐	☐	Operator ☐	☐	Bending ☐	☐	Set-up ☐	☐
Doc/Data ☐	☐	Offset/Setup ☐	☐	Centre Not Concentric ☐	☐	BOM/Route ☐	☐
Equip/Tooling ☐	☐	Supplier ☐	☐	Cracks ☐	☐	Broken/Damage/Defect ☐	☐
Handling/Pre ☐	☐	Training ☐	☐	Crimp/Kink/Ripple/Wave ☐	☐	Inspection Incomplete/Unqualified ☐	☐
Material ☐	☐	Use for Testing ☐	☐	Cuffs ☐	☐	Contamination ☐	☐
Internal Transport ☐	☐	Poor Information ☐	☐	Crushing ☐	☐	Countersink ☐	☐
Tribal Knowledge ☐	☐	Rushing ☐	☐	Heat Treat ☐	☐	Cut Too Short ☐	☐
LOA ☐	☐	Product Improvement ☐	☐	Wave/Twist in Tube ☐	☐	Instructions Incomplete/Unclear ☐	☐
Substation ☐	☐	Process Improvement ☐	☐	Marks/Chatter ☐	☐	Drill Holes ☐	☐
Past Expiry Date ☐	☐	Manufacturing Process ☐	☐	OTHER : _____			
Misidentified ☐	☐	Past Due ☐	☐				

Work Order ID 151195

September 13, 2016 3:34:38 PM

151195

Page 2

Item ID: D212-725-1-945

Revision ID:

Item Name: Tube

Start Date: 9/12/2016 Start Qty: 2.00

Required Date: 10/17/2016 Req'd Qty: 2.00

Reference:

Accept

N900040100

Setup Start

NS1

Stop

NS2

Cust Item ID:

Customer:

2

2

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

120

QC6- Inspect dimensions to drawing

0.00

120

QC

Memo

0.00

Quality Control

PART#D212-725-1-945
16-1229-3 EMP-010

PART # D212-725-1-945
16-1229-5-1 EMP 09

DAS
9
9-89

130

Identify as per dwg & Stock Location: ST/SLA

0.00

130

Packaging

Memo

0.00

Packaging

DAS
6
9-89

NOV 18 2016

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Memo

0.03

Quality Control

DAS
21
9-89

NOV 18 2016

16-11-17

DAS
38
9-89

NOV 18 2016

2

16-11-18 121 Alodine BEB
122 Qc 7

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Picklist Print

September 13, 2016 3:34:37 PM

Page 1

Work Order ID: 151195

Parent Item: D212-725-1-945

Parent Item Name: Tube

151195

D212-725-1-945

Start Date: 9/12/2016

Required Date: 10/17/2016

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP REV:A 13.07.12 PER DWG REV.A DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D212-725-1-945P *D212-725-1-945P* Tube		Purchased	No				Each	0.0000		2			
										**	2x SP/6-11-17		

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



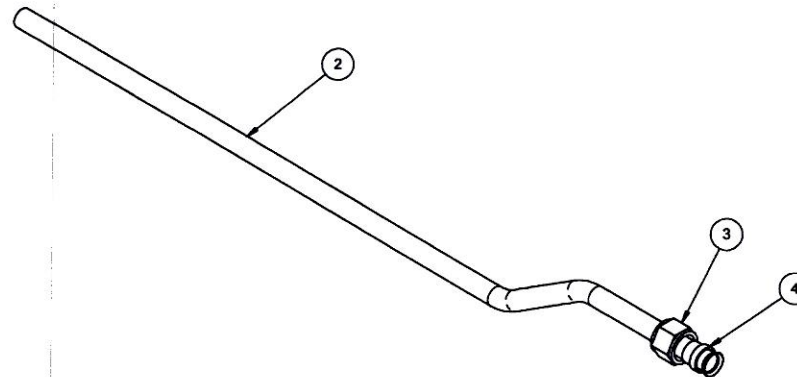
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause			FAULT CATEGORY		
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐				

ITEM	QTY -945	PART NUMBER	DESCRIPTION
1	X	D212-725-1-945	DRAIN TUBE ASSEMBLY
2	1	D212-725-1-239	DRAIN TUBING
3	1	AN818-12D	NUT
4	1	MS20819-12D	SLEEVE



SEP 13 2016

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 131195
SH

2014-07-03

D212-725-1-945 DRAIN TUBE ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.34 lbs

B	MATERIAL CHANGE T6 TO T4	VS	13.11.07
A	NEW ISSUE	RF	11.02.24
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>OS</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>OS</i>		
CHECKED	<i>SC</i>	DRAWING NO. D4266	REV. B
MFG. APPR.	<i>SC</i>	SHEET 1 OF 2	
APPROVED	<i>SC</i>	TITLE	SCALE
DE APPR.	<i>SC</i>	TUBE ASSEMBLY	NTS
DATE	13.11.07	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

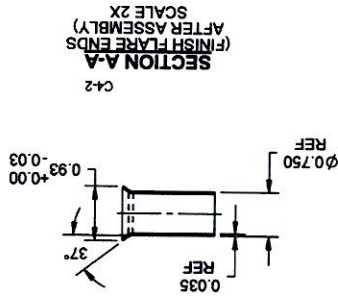
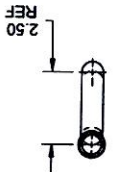
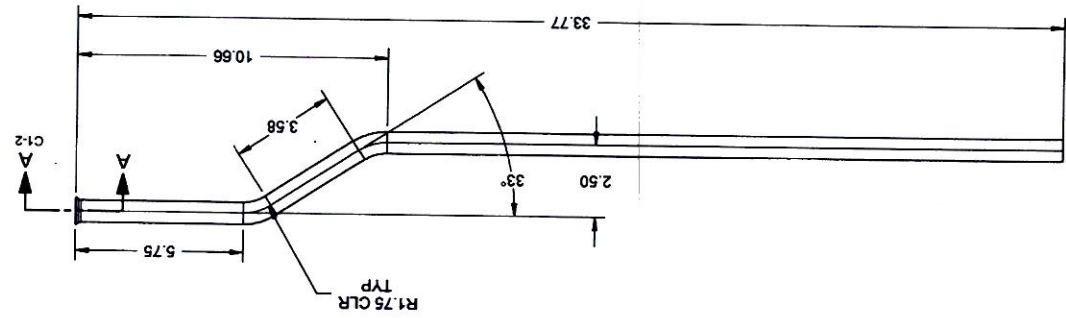
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
NO WORK ORDER WITHOUT A WORK ORDER TO BE REJECTED BY ENGINEERING RETURN TO SHOP COPY				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

NOTES:
 1) MATERIAL: 6061-T4 SEAMLESS ALUMINUM TUBING, ϕ 0.750 x 0.035 WALL
 PER WW-T-700/6 OR AMS4081 OR AMS-T-7081
 OR QQ-A-200/8 OR QQ-A-225/8
 REF DART SPEC. M6081T4T0.750W.035
 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005.4.1
 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 6) IDENTIFICATION: NONE
 7) WEIGHT: 0.26 lbs

D212-725-1-239 DRAIN TUBING
 (MANUFACTURE PER TEMPLATE D78918)



DESIGN	003	DATE	13.11.07
DRAWN	003	DE APPR.	
CHECKED	003	APPROVED	
MFG. APPR.	003	TITLE	TUBE ASSEMBLY
DRAWING NO.	D4266	SCALE	NTS
REV. B		SHEET 2 OF 2	
DART AEROSPACE LTD HAMKESBURY, ONTARIO, CANADA			

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 NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT
 WRITTEN PERMISSION FROM DART AEROSPACE LTD.

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO33759**

Purchase Order Date 9/23/2016

PO Print Date 9/23/2016

Page Number 2 of 3

Order From :

VC-ATB001

Ship To : DART AEROSPACE LTD

AGGRESSIVE TUBE BENDING
9750 - 188TH STREET
SURREY, B.C. V4N 3M2
CANADA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 604-882-4872

Ship To Contact

Ship To Phone

Ship Via: FedEx Overnight collect

Ship Acct:

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

Destination-Collect

3	D212-725-1-941P	Tube	10/24/2016	1.00	\$550.00	\$550.00
			Yes	Each		
			10/24/2016			

MANUFACTURE AS PER DWG D212-725-1-941 REV. B
B151193
MAKE FROM MATERIAL 6061-T4 ROUND TUBING 0.750" X .035" WALL

Line Total: \$550.00

4	D212-725-1-943P	Tube	10/24/2016	1.00	\$550.00	\$550.00
			Yes	Each		
			10/24/2016			

MANUFACTURE AS PER DWG D212-725-1-941 REV. B
B151194
MAKE FROM MATERIAL 6061-T4 ROUND TUBING 0.750" X .035" WALL

Line Total: \$550.00

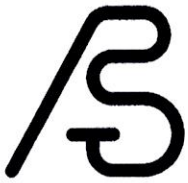
5	D212-725-1-945P	Tube	10/24/2016	2.00	\$425.00	\$850.00
			Yes	Each		
			10/24/2016			

MANUFACTURE AS PER DWG D212-725-1-945 REV. B
B151195
MAKE FROM MATERIAL 6061-T4 ROUND TUBING 0.750" X .035" WALL

Note:

9/23/2016

8/16/11-17

**AGGRESSIVE TUBE BENDING INC.**

9750 188th Street
Surrey, BC V4N 3M2
Phone: 1-604-882-4872
Fax: 1-604-882-4873

PACKLIST

Packlist ID: 29181
Date: 2016-11-14
Page: 1 of 1

Shipped By: TERRY

Sold To Address	Ship To Address
DART AEROSPACE LTD 1270 ABERDEEN STREET HAWKESBURY, ON K6A 1K7 CANADA	DART AEROSPACE LTD 1270 ABERDEEN STREET HAWKESBURY, ON K6A 1K7 CANADA

CUSTOMER ID			CUSTOMER PO		PAYMENT TERMS		F.O.B.	
2883			PO33759		Net 30			
SALES REP ID			SHIPPING METHOD			SHIP DATE	OUR ORDER NUMBE	
YT			FEDEX 1-800-463-3339			NOV 15/16	16-1229	
QUANTITY			CUSTOMER					
ORD	SHF	BCK	PART ID	DESCRIPTION		PART NO.	DRAWING #	

2 2 0 SUP/FAB 1 X .049 316 SS D212-725-1-931

1 1 0 SUP/FAB 1/4 X .035 6061 T4 D212-725-1-933

1 1 0 SUP/FAB 3/4 X .035 6061 T4 D212-725-1-941

1 1 0 SUP/FAB 3/4 X .035 6061 T4 D212-725-1-943

2 2 0 SUP/FAB 3/4 X .035 6061 T4 D212-725-1-945

DAS
9
9-89

ORDER SPECIFICATIONS

SHIP OVERNIGHT

8/16-11-17

RECEIVED BY: _____

CERTIFICATE OF CONFORMANCE

PYROTEK AEROSPACE LTD.

CUSTOMER P.O. # 16-1229

CERT: 97592

101 - 2285 Queen Street, Abbotsford, B.C. V2T 6J3

TEL: (604) 859-4484 FAX: (604) 859-4481

PYROTEK W.O. #: 97521

W.O. Date: 10/26/2016

CERT DATE: November, 01 2016

CUSTOMER: **Aggressive Tube Bending Inc.**

9750 - 188th Street, Surrey, BC V4N 3M2

MATERIAL: 6061-T6

ALUMINUM TUBE

0.035" - 0.035" BARE

PROCESS DESCRIPTION: Solution Heat Treat to "W" Condition / Natural Age to 6061-T42 Temper

QUANTITY	PART NUMBER	PARTS DESCRIPTION	REFERENCE
2 ea.	N/A	SEAMLESS TUBE	N/A
4 ea.	N/A	SEAMLESS TUBE	

BATCH #	PROCESS	TIME	TEMPERATURE	FURNACE	SPECIFICATIONS
39487	Solution Heat Treat	0:36 Minutes	985 deg. F.	6	AMS 2770 Rev N
	Quench	7 Second	71/73 deg. F.		

Natural Age

Ambient

Glycol Quench 22 % max

Air Cool Ambient

* Parts exceeded Minimum Temper Requirements prior to 96 hr. period

TEMPER VERIFICATION REPORT

SPECIFICATION: AMS 2658 "D"

HARDNESS: 64.3 - 64.6 HR15TW (1/4")

HARDNESS: 67.6 - 68.2 HR15TW (3/4")

ELECTRICAL CONDUCTIVITY:

N/A % IACS (1/4")

N/A % IACS (3/4")

No E.C. per AMS 2770 L para. 4.4.1.2

PYROTEK Certifies that the items listed hereon have been HEAT TREATED IN ACCORDANCE with the above LISTED SPECIFICATION, have been inspected and tested and conform to all Contract or Purchase Order requirements. TEMPER IS CERTIFIED for the Items in their Present State of Condition. Documentation is on file.



QTY. ACCEPT

2+4

QTY. REJECT

0

MANAGER, QUALITY ASSURANCE

November 01, 2016

DATE



PACKING LIST



DELIVERY NUMBER: 8003777557

ROUTE: Generic route DON'T USE WITH PLANT

PAGE:1 of 1

DATE:07NOV16

TIME:13:26:12

EMP:00011968

ORD TYP: ZOR 133

CURRENCY:CAD

TERMS:Pay immediately w/o

CUSTOMER PO:16-1229
ORDER NUMBER:1002569947
ORDER DATE:21OCT16

B 10016782
I COD SALES VANCOUVER/BOTH TAX
L 1 - 13511 CRESTWOOD PLACE
L RICHMOND BC V6V 2E9
T CANADA
O

S 10016782
H AGGRESSIVE TUBE BENDING
I 604-882-4872
P 9750 - 188 STREET
T SURREY BC V4N 3M2
O CANADA

S 1502
H AVIALL VANCOUVER CSC
I VANCOUVER SALES OFFICE
P UNIT 1-13511 CRESTWOOD PLACE
F RICHMOND BC V6V 2E9
R CANADA
O

LINE	PO LINE	MFG	ITEM DESCRIPTION	ORDER QUANTITY	SHIP QUANTITY	QUANTITY BACK ORDER	UOM	CUSTOMER PRICE	EXTENDED CUSTOMER PRICE
00010	0	8M	5052-0-4 TUBE: AL,1/4INX6FT	12	12	0	FT		
			BATCH 7364313004		12				

2 @ 1/4" x .035 WW-T-700 6' LONG
16-1229
DART AEROSPACE
NOV 7/16
TERRY

This is not an Invoice.
For payment processing, please refer to Invoice.

CERTIFICATE OF CONFORMANCE / CERTIFICAT DE CONFORMITE

I hereby certify that the aircraft parts appliances and/or aircraft materials described hereon were acquired from a source of supply that is consistent with the conditions under which the department of transport distributor approval number 35-86 has been granted. Je certifie par la par la presente que les pieces appareils et/ou materiaux d'avions decrits ci-dessus ont ete acqals d'une source d approvisionnement consistante avec les conditions sous lesquelles l'approbation du distruteur du departement du transport no. 35-86 ont ete recue.

Rick Rantz, DSM

07NOV16
Date

DISCOUNT TERMS APPLY ONLY TO SUB TOTAL
ESCOMPTE APPLIQUES SUR SOUS TOTAL SEULEMENT.
ALL RETURNED MERCHANDISE SUBJECT TO A
HANDLING FEE. FRAIS DE MANUTENTION APPLIQUES
SUR TOUTE MARCHANDISE RETOURNEE.

CUSTOMER COPY



PACKING LIST



DELIVERY NUMBER: 8003760751

PAGE:1 of 1
DATE:02NOV16
TIME:13:28:19
EMP:00020887CUSTOMER PO:16-1229
ORDER NUMBER:1002569947
ORDER DATE:21OCT16

ROUTE: Generic route DON'T USE WITH PLANT

ORD TYP: ZOR 133
CURRENCY:CAD
TERMS:Pay immediately w/oB 10016782
I COD SALES VANCOUVER/BOTH TAX
L 1 - 13511 CRESTWOOD PLACE
L RICHMOND BC V6V 2E9
T CANADA
OS 10016782
H AGGRESSIVE TUBE BENDING
I 604-882-4872
P 9750 - 188 STREET
T SURREY BC V4N 3M2
O CANADAS 1502
H AVIAL VANCOUVER CSC
I VANCOUVER SALES OFFICE
P UNIT 1-13511 CRESTWOOD PLACE
FROM RICHMOND BC V6V 2E9
CANADA

LINE	PO LINE	MFG	ITEM DESCRIPTION	ORDER QUANTITY	SHIP QUANTITY	QUANTITY BACK ORDER	UOM	CUSTOMER PRICE	EXTENDED CUSTOMER PRICE
00010	0	74	AN818-16J NUT: COUPLING,SS	2	2	0	EA		
			BATCH 7364391121		2				
00020	0	74	MS20819-16J SLEEVE: FLARED TUBE,CRES	2	2	0	EA		
			BATCH 7364391128		2				

16-1229
DART AEROSPACE
NOV 3/16
TERRY

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AV20 RS-06

Rick Rantz, DSM

02NOV16
DateDISCOUNT TERMS APPLY ONLY TO SUB TOTAL
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SUR TOUTE MARCHANDISE RETOURNEE.

CUSTOMER COPY



PACKING LIST



DELIVERY NUMBER: 8003760750

ROUTE: Generic route DON'T USE WITH PLANT

PAGE:1 of 1

DATE:02NOV16

TIME:13:30:25

EMP:00020887

ORD TYP: ZOR 133

CURRENCY:CAD

TERMS:Pay immediately w/o

CUSTOMER PO:16-1229
ORDER NUMBER:1002569947
ORDER DATE:21OCT16

B 10016782
I COD SALES VANCOUVER/BOTH TAX
L 1 - 13511 CRESTWOOD PLACE
L RICHMOND BC V6V 2E9
CANADA
T
O

S 10016782
H AGGRESSIVE TUBE BENDING
I 604-882-4872
P 9750 - 188 STREET
SURREY BC V4N 3M2
CANADA
T
O

S 1502
H AVIALL VANCOUVER CSC
I VANCOUVER SALES OFFICE
P UNIT 1-13511 CRESTWOOD PLACE
RICHMOND BC V6V 2E9
CANADA
F
R
O
M

LINE	PO LINE	MFG	ITEM DESCRIPTION	ORDER QUANTITY	SHIP QUANTITY	QUANTITY BACK ORDER	UOM	CUSTOMER PRICE	EXTENDED CUSTOMER PRICE
00010	0	28	AN818-12D NUT: COUPLING,AL	6	6	6	EA		
			BATCH 7364236911			1			
			BATCH 7364307345			5			
00020	0	28	AN818-4D NUT: COUPLING,AL	5	5	5	EA		
			BATCH 7364315360			5			
00030	0	28	MS20819-12D SLEEVE: FLARED TUBE,AL	10	10	10	EA		
			BATCH 7364267964			10			
00040	0	28	MS20819-4D SLEEVE: FLARED TUBE,AL	5	5	5	EA		
			BATCH 7364087462			5			

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AV20 RS-06

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CUSTOMER COPY



允強實業股份有限公司
YC INOX CO., LTD.

檢驗證明書
INSPECTION CERTIFICATE

524彰化縣溪州鄉中山路四段270號
No.270, Sec.4, Jungshan Rd., Shijou Shiang,
Chang-Hwa, Taiwan, R.O.C.
http://www.ycinox.com
TEL : +886-4-8899666 FAX : +886-4-8899770



客戶名稱 Customer	SAMUEL, SON&CO. LIMITED	客戶編號 Customer No.	FCA021	證明書編號 Certificate No.	160512C0059
產品名稱 Production	PRIME COLD ROLLED STAINLESS STEEL SHEET	商業發票號碼 Commercial Invoice No.	J16050033	證明書日期 Date of Issue	2016/05/11
規範名稱 Specification	ASTM A240M-15b/A480M-16	客戶採購案號 PO No.	V75284	訂單編號 Order No.	EC16030150-3
鋼種 Steel Grade	304/304L	提貨單編號 Weight No.	C16050226	P.I.號碼 P.I.NO.	A10503098

項目 Item No.	爐 號 Heat No.	產品規格 Product Description					化學成份(%) Chemical Composition								拉伸試驗 Tension Test			*01 硬 度 HRC	*02 熱處理 T.W.Q.	箱號 C/No.	Coil No
		尺寸 Dimension	數量 Quantity Pcs	重量 Weight kgs	表面 Finish	保護 Protect	碳	矽	錳	磷	硫	鎳	鉻	氮	降伏	抗拉	伸長率				
							C X10 ⁻³	Si X10 ⁻²	Mn X10 ⁻²	P X10 ⁻³	S X10 ⁻³	Ni X10 ⁻²	Cr X10 ⁻²	N X10 ⁻³	0.2%Y.S. MPa	T.S. MPa	E.L. %				
Specification						Min.	30	75	200	45	30	800	1750		205	515	40		1040		
					Max.																
1	C34AT1600290	0.024" x48.0" x120.0"	75	1,313	2B	PI	23	52	102	32	2	812	1829	65	288	644	54	70	1050	B2	PG867
2	C34AT1600290	0.024" x48.0" x120.0"	75	1,312	2B	PI	23	52	102	32	2	812	1829	65	288	644	54	70	1050	B3	PG867
3	C34AT1600290	0.024" x48.0" x120.0"	74	1,292	2B	PI	23	52	102	32	2	812	1829	65	288	644	54	70	1050	B4	PG867
4	C34AW1504514	0.047" x48.0" x96.0"	54	1,490	2B	PI	20	45	138	28	1	804	1802	74	285	677	63	87	1050	B8	4U659403
5	C34AW1504514	0.047" x48.0" x96.0"	53	1,458	2B	PI	20	45	138	28	1	804	1802	74	285	677	63	87	1050	B9	4U659403
6	C34AW1504514	0.047" x48.0" x96.0"	53	1,464	2B	PI	20	45	138	28	1	804	1802	74	285	677	63	87	1050	B10	4U659403
7	C34AW1504514	0.047" x48.0" x96.0"	53	1,463	2B	PI	20	45	138	28	1	804	1802	74	285	677	63	87	1050	B11	4U659403
8	C34AW1504514	0.047" x48.0" x96.0"	53	1,467	2B	PI	20	45	138	28	1	804	1802	74	285	677	63	87	1050	B12	4U659403
9	C34AW1600953	0.047" x48.0" x120.0"	48	1,674	2B	PI	19	44	155	29	2	800	1830	50	301	675	52	87	1050	B13	9F690Y09
10	C34AW1600953	0.047" x48.0" x120.0"	48	1,670	2B	PI	19	44	155	29	2	800	1830	50	301	675	52	87	1050	B14	9F690Y09
11	C34AW1600953	0.047" x48.0" x120.0"	48	1,672	2B	PI	19	44	155	29	2	800	1830	50	301	675	52	87	1050	B15	9F690Y09
12	C34AW1600953	0.047" x48.0" x120.0"	48	1,672	2B	PI	19	44	155	29	2	800	1830	50	301	675	52	87	1050	B16	9F690Y09
13	C34AW1600953	0.047" x48.0" x120.0"	48	1,672	2B	PI	19	44	155	29	2	800	1830	50	301	675	52	87	1050	B17	9F690Y09
14	C34AW1600953	0.047" x48.0" x120.0"	48	1,670	2B	PI	19	44	155	29	2	800	1830	50	301	675	52	87	1050	B18	9F690Y09
15	C34AW1600953	0.047" x48.0" x120.0"	47	1,635	2B	PI	19	44	155	29	2	800	1830	50	301	675	52	87	1050	B19	9F690Y09
16	C34AW1600953	0.047" x48.0" x120.0"	47	1,636	2B	PI	19	44	155	29	2	800	1830	50	301	675	52	87	1050	B20	9F690Y09
17	C34AW1600953	0.047" x48.0" x120.0"	47	1,640	2B	PI	19	44	155	29	2	800	1830	50	301	675	52	87	1050	B21	9F690Y09
18	C34AW1601251	0.06" x48.0" x96.0"	44	1,510	2B	PI	22	40	141	30	1	804	1821	80	304	645	56	80	1050	B22	4X765403
19	C34AW1601251	0.06" x48.0" x96.0"	43	1,475	2B	PI	22	40	141	30	1	804	1821	80	304	645	56	80	1050	B23	4X765403
TOTAL:			1,006	29,185																	

附註 Remark		註解 Note	
ASME SA240/SA480 P209680- P209688-693 P209702-704		Intergranular Corrosion Test (according to ASTM A262 Practice E) : OK Intergranular Corrosion Test (according to EN ISO 3651-2 Method A) : OK Intergranular Corrosion Test (according to ASTM A262 Practice A) : OK	
Surveyor By		Visual Inspection(Surface) and Dimension Check : OK	
N/A		1.ISO 9001:2008 (No.01 100 056299) 2.PE01/AD2000 (No.01 202 TWN/Q-05 0105) 3.ISO 14001:2004 (No.01 104 822 096385) 4.OHSAS 18001:2007 (No.01 113 822 095385)	
茲證明本文所列產品，均依材料標準製造及試驗，並符合標準之要求，與無輻射污染 We hereby certify that material described herein has been manufactured and tested with satisfactory results in accordance with the requirement of the above material specification. The material described above has been found with free of radiation by raw material supplier.		*01= Hardness Test *02= Heat Treatment *Gauge Length: 50mm 1MPa=1N/mm ² =10bar=145psi=10.2kgf/cm ² Manager of Quality Assurance Department Jow Yu Shih	



ZHEJIANG STELLAR PIPE INDUSTRY CO.,LTD

INDUSTRIAL PARK,XIAOZHI,QINGTIAN,323900,ZHEJIANG,CHINA
TEL:8651267901092 FAX:8651287901095

MILL TEST CERTIFICATES to EN 10204/3.1 PED 97/23 EC

PED Certificate no.:331/2007/MUC

Customer : UNIFIED ALLOYS
Contract NO. : T15YKZ0807-01
Specification : ASTM A213-14/ASME SA213-15/ASTM A269-14
Steel Grade : TP316/316L
Goods : STAINLESS STEEL SEAMLESS TUBE
PO No. : VP-121862
Cert No. : ST151017-57
Delivery Condition : Solution Treated
Appearance : Pickling

Goods

STAINLESS STEEL SEAMLESS TUBE

Appearance

Heat No.		Chemical Composition (%)										
		C	Si	Mn	P	S	Cr	Ni	Mo	Ti		
Spec.	Min.						16.00	10.00	2.00			
	Max.	0.035	1.00	2.00	0.045	0.030	18.00	14.00	3.00			
Ladle Analysis	150417V01	0.021	0.27	0.97	0.032	0.004	16.57	10.03	2.04			
Product Analysis		0.014	0.43	1.05	0.039	0.004	16.19	10.17	2.01			
Batch No.		Size		Quantity							Visual Examination	
4T150923-33		12.7*1.24*6096 1/2"*0.049*20FT		100 PCS		226 KGS		609.6 M 2000 FT		OK		
4T150923-35		25.4*0.89*6096 1"*0.035*20FT		9 PCS		31 KGS		54.864 M 180 FT		OK		
4T150831-02		25.4*1.24*6096 1"*0.049*20FT		25 PCS		121 KGS		152.4 M 500 FT		OK		
Test No.		Mechanical Properties (Acc to ASTM A370)										
		Tensile Strength MPa	Proof Strength MPa Rp0.2	Elongation A(%)	Flattening Test	Ring Tensile Test	Drift Expanding Test	Ring Expanding Test	Impact Test	Hardness Test HRB		
Spec.	Min. Max.	515	205	35						90		
L82		580/585	254/256	53/54	GOOD	/	GOOD	/	/	71/73		
L83		595	263	59	GOOD	/	GOOD	/	/	71/76		
L84		575	236	59	GOOD	/	GOOD	/	/	74/78		
Leak Tightness Test			Non-destructive Testing		Intergranular Corrosion Test							
Hydrostatic Test Acc to ASTM A1016		Eddy Current Test Acc to ASTM E426	Ultrasonic Test Acc to ASTM E213		Acc to ASTM A262-E							
/		GOOD	/		/							
/		GOOD	/		/							
/		GOOD	/		/							

Additional Remarks:

- Country of Origin: China
- No weld repair
- Hardness Acc. to NACE MR0103/MR0175/ISO 15156
- 4.100% PMI
- Solution Temperature :1050°C. Hold 30minutes.Rapid Water Cooling.

We hereby certify that the material described above has been tested and complies with the terms of the Contract & the specification, and we confirm that P.M.I has been done.

Dec/19/2015

Date

Quality Technology Director